

**Listing of the Claims:**

Please substitute the following full listing of claims for the claims as originally filed or most recently amended.

1. (Currently amended) An optical device comprising:

a solid composition layer having a predetermined protrusion or groove surface profile on a surface thereof, wherein said solid composition layer is resin; and

a multi-layered dielectric film coating the surface of the solid composition layer,  
wherein the solid composition layer is constituted by a layer formed by providing at least one of heat or UV light to a fluid composition containing a polymerizable organic group on a substrate so as to polymerize and cure the fluid composition.

2. (Original) An optical device according to claim 1, wherein a glass transition temperature of the solid composition layer is not lower than 100°C.

3. (Original) The optical device as claimed in claim 2, wherein the glass transition temperature of the solid composition is not lower than 150°C.

4. (Original) The optical device as claimed in claim 2, wherein the glass transition temperature of the solid composition is not lower than 200°C.

5. (Original) An optical device according to claim 1, wherein a linear thermal expansion coefficient of the solid composition layer is not larger than 190 ppm/°C.

6. (Original) The optical device as claimed in claim 5, wherein the linear thermal expansion coefficient of the solid composition is at most 170 ppm/°C.

7. (Original) The optical device as claimed in claim 6, wherein the linear thermal expansion coefficient of the solid composition is at most 150 ppm/°C.

8. (Original) An optical device according to claim 1, wherein a weight reduction in the solid composition layer when heated at a temperature not higher than the glass transition temperature thereof is not larger than 1.3 % by weight.
9. (Original) The optical device having a predetermined surface profile as claimed in claim 8, wherein the weight reduction in the solid composition layer is at most 1.0 % by weight.
10. (Original) The optical device having a predetermined surface profile as claimed in claim 8, wherein the weight reduction in the solid composition layer is at most 0.7 % by weight.
11. (Cancelled)
12. (Currently amended) The optical device as claimed in claim ~~11~~1, wherein the polymerizable organic group is an epoxy group.
13. (Original) The optical device as claimed in claim 12, wherein the fluid composition contains the following components (A), (B), (C) and (D) in the ratio indicated below:
- |                                    |                         |
|------------------------------------|-------------------------|
| (A) non-fluorinated epoxy compound | 20 to 99.9 % by weight, |
| (B) polymerization initiator       | 0.1 to 7 % by weight,   |
| (C) fluorinated epoxy compound     | 0 to 79.9 % by weight,  |
| (D) silane coupling agent          | 0 to 10 % by weight.    |
14. (Original) The optical device as claimed in claim 13, wherein the component (A) is an alicyclic epoxy compound.
15. (Currently amended) The optical device as claimed in claim ~~11~~1, wherein the polymerizable organic group is at least one selected from an acryloxy group, a methacryloxy group and a vinyl group.

16. (Currently amended) The optical device as claimed in claim ~~11~~1, wherein the multi-layered dielectric film includes at least two layers formed with, as an essential ingredient thereof, a material selected from SiO<sub>2</sub>, TiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, ZrO<sub>2</sub>, Nb<sub>2</sub>O<sub>5</sub> and MgF<sub>2</sub>.

17. (Original) The optical device as claimed in claim 16, wherein a thickness of each layer of the multi-layered dielectric film falls between 1 and 600 nm.

18. (Original) The optical device as claimed in claim 16, wherein a grain mass or a columnar structure existing in the multi-layered dielectric film has a diameter of smaller than 10 nm.

19. (Currently amended) An optical device comprising:

a solid composition layer having a predetermined protrusion or groove surface profile on a surface thereof, wherein said solid composition layer is resin; and

a multi-layered dielectric film coating the surface of the solid composition layer.

~~The optical device as claimed in claim 1,~~ wherein the surface of the solid composition layer polymerized and cured is coated with an SiO<sub>2</sub> film having a thickness of from 1 to 200 nm, forming the multi-layered dielectric film.

20. (Currently amended) The optical device as claimed in claim ~~11~~1, wherein the substrate includes at least one selected from glass, ceramics, metal and resin.

21. (Previously presented) The optical device as claimed in claim 1, of which the predetermined protrusion or groove surface profile functions as a transmission grating, a Fresnel lens or a microlens array.

22-31. (Canceled)

32. (Previously presented) The optical device of claim 1 wherein said predetermined protrusion or groove surface profile includes protrusions of spherical, conical or angular conical profile.

Serial No.: 10/630,925

M. Hori et al.

Page 5

33. (Previously presented) The optical device of claim1 wherein said predetermined protrusion or groove surface profile includes linear slits, curved slits, concentric circles or lattices.